BLUE ROCK ENVIRONMENTAL, INC.

FILE COPY

May 6, 2005

Ms. Kasey Ashley
NCRWQCB
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Re: Second Quarter 2005 Groundwater Monitoring Report
Former Beaver Lumber Company
1220 Fifth Street, Arcata, CA
NCRWQCBCase No. 1NHU001
Blue Rock Project No. NC-1

Dear Ms. Ashley,

This report presents the results of the second quarter 2005 groundwater monitoring activities at 1220 Fifth Street, Arcata, Humboldt County, California (site) (Figure 1), and was prepared for Mr. Bradford C. Floyd by Blue Rock Environmental, Inc. (Blue Rock).

Background

Site Description

The site is located at the western end of Fifth Street, between State Highway 255 and the railroad tracks, in the town of Arcata, California (Figure 1). The site consists of a metal framed building surrounded by asphalt pavement and gravel surfacing (Figure 2). The site is surrounded by industrial, commercial, agricultural, and residential properties. Prior to the construction of the waste transfer station and truck scale, the site was paved with asphalt and used as a log deck for the former adjacent saw mill.

Site History

In September 1998, approximately 1,200 cubic yards of sand and gravel fill material and 3,500 cubic yards of silty clay soil were excavated from the site to facilitate the construction of a waste transfer station. Kernen Construction Company (Kernen) removed site soils from ground surface to 4 feet below ground surface (bgs) in the two excavation locations shown in Figure 2. Engineered fill was then placed in these locations to meet building code requirements. The excavated soil was stockpiled on asphalt near the excavation. The soils where scheduled to be hauled to Cummings Road Landfill in Eureka, California to be used as cover soil.

On September 9, 1998, trucks containing site soils were turned away from the Cummings Road Landfill because the site supervisor observed that the soil appeared dark and had an oily smell. The soil was then hauled to Kernen's construction facility in Glendale, California for temporary storage.

535 THIRD ST., SUITE 100 * EUREKA, CA 95501 * OFFICE (707) 441-1934 * FAX (707) 441-1949

In a September 16, 1998 letter, the City Garbage Company of Eureka informed the Humboldt County Division of Environmental Health (HCDEH) that soils from the site were refused and appeared to have an oily smell.

On September 22, 1998, Kernen collected four soil samples from the soil stockpile. These samples (1, 2, 3, and 4) were analyzed for total petroleum hydrocarbons as diesel (TPHd) and sample 3 was also analyzed for hydrocarbon oil and grease (O&G). Low levels of TPHd and O&G were detected in these samples. These laboratory results were forwarded to the HCDEH.

On October 6, 1998, the Humboldt Solid Waste Management Authority (HCWMA), which was leasing the site, and the HCDEH had a meeting to discuss the disposition of the soil stockpiled at Kernen's facility.

In a letter dated October 9, 1998, the HCDEH informed the HCWMA of options for handling the soils.

On October 13, 1998, Winzler and Kelly collected six soil samples (5, 6, 7, 8, 9, and 10) from the stockpiled soil for disposal profiling.

In December 1998, the NCRWQCB authorized the HCWMA to bioremediate site soils on an asphalt paved portion of the Humboldt County Road Department lease property located on the eastern edge of the Arcata Airport.

In a letter dated July 5, 2000, the NCRWQCB sent a reminder request to the HCWMA for the necessary submittal a report of waste discharge and final disposal plan.

In a letter dated December 29, 2000, the NCRWQCB requested the property owner to prepare a workplan to determine the extent soil contamination and if groundwater has been impacted in reference to the locations of excavated soils.

On March 19, 2003, Clearwater Group (Clearwater) reviewed aerial photos of the site from 1996 and interviewed the site contractor that performed the soil excavation activities. Clearwater interpreted aerial photos from 1996 to indicate that the site was previously used as a log deck and storage of heavy equipment and machinery. The site contractor indicated that the site prior to construction contained scattered wood waste on top of asphalt surfacing and below the asphalt consisted of sand and gravel fill from below asphalt to approximately 1 foot bgs and gray silty clay from 1 foot bgs to total excavated depth of 4 feet bgs. Soil was excavated 5 feet beyond the footprint of the buildings shown in Figure 2.

Clearwater submitted a *Preliminary Site Investigation Workplan*, dated March 31, 2003, to the NCRWQCB. The workplan proposed to evaluate the extent of petroleum hydrocarbon contamination in subsurface soil and groundwater peripheral to the two "September 1998" soil excavation areas (Figure 2). The workplan proposed to complete the investigation through the

installation of five shallow soil borings with the collection of grab groundwater samples. This workplan was approved by the NCRWQCB in a letter dated May 13, 2003.

On June 12, 2003, Clearwater supervised the advancement of five soil borings associated with the subject property: SB-1 through SB-5 (Figure 2). These soil borings were placed in locations to assess the sorbed-phase hydrocarbon contamination associated with the site. Grab groundwater samples were collected from each boring to evaluate dissolved-phase hydrocarbon contamination associated with the site. These borings were advanced to 15 feet bgs. Based on soil stockpile analytical results and area of excavation, Clearwater calculated that approximately 395 gallons of motor oil was removed from the site in 1998. Results of this investigation are presented in Clearwater's *Preliminary Site Investigation Report*, dated August 11, 2003. The NCRWQCB commented on this *Report* in a site correspondence letter dated August 28, 2003, requesting preparation of a Workplan to define the extent of contamination and requesting lower detection limits for TPHmo. Clearwater had the laboratory revise the laboratory report to reflect the requested detection limit for TPHmo in groundwater samples collected on June 12, 2003.

Clearwater submitted a *Workplan for Additional Investigation*, dated September 29, 2003, to the NCRWQCB. The *Workplan* proposed the installation of four groundwater monitoring wells proximal to soil boring SB-2 to evaluate hydrocarbon distribution and establish a groundwater gradient and flow direction. This *Workplan* was approved with comments by the NCRWQCB in a letter dated October 31, 2003.

On January 10, 2005, Blue Rock supervised the installation of four monitoring wells associated with the subject site: MW-1 to MW-4 (Figure 2). These monitoring wells were placed in locations to assess the hydrocarbon contamination and establish a groundwater gradient associated with the site. These borings were advanced to 15 feet bgs.

Groundwater Monitoring Field and Laboratory Activities

Groundwater Monitoring Activities

On February 7, March 10, and April 19, 2005, all four wells (MW-1 through MW-4) were gauged and samples were collected on April 19, 2005.

Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ±0.01-foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized.

Following recovery of water levels to at least 80% of their static levels in the other wells, groundwater samples were collected from the wells using disposable polyethylene bailers and

transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox® wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Groundwater Sample Analyses

Groundwater samples were analyzed by Kiff Analytical (Kiff), a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHmo by EPA Method 8015M with silica gel cleanup.
- TPHd by EPA Method 8015M with silica gel cleanup.
- BTEX by EPA Method 8260B.

Groundwater Monitoring Results

Groundwater Flow Direction and Gradients

On February 7, 2005, static groundwater in the wells was present beneath the site at depths ranging from approximately 2.83 (MW-3) to 4.55 (MW-4) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to be toward the south at a gradient of 0.002 ft/ft (Figure 3a).

On March 10, 2005, static groundwater in the wells was present beneath the site at depths ranging from approximately 2.75 (MW-3) to 4.57 (MW-4) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to be toward the south at a gradient of 0.005 ft/ft (Figure 3b).

On April 19, 2005, Static groundwater in the wells was present beneath the site at depths ranging from approximately 2.37 (MW-3) to 4.39 (MW-4) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to be toward the south at a gradient of 0.0098 ft/ft (Figure 3c).

Groundwater Contaminant Analytical Results

LNAPL:	None
TPHmo concentration:	<100 micrograms per liter (µg/L) (MW-2, MW-3, MW-4) to 390 µg/L (MW-1)
TPHd concentration:	<50 µg/L (MW-2, MW-3, MW-4) to 73 µg/L (MW-1)
Benzene concentration:	<0.50 µg/L (MW-1, MW-2, MW-3, and MW-4)

Groundwater sample analytical results are shown graphically on Figure 4, and groundwater sample analytical results are summarized in Table 1. Well construction details are summarized in Table 2. Copies of the laboratory report and chain-of-custody form are attached.

Remarks
Groundwater sample analytical results are similar to previous sample results. Concentrations of TPHd are footnoted by the laboratory as non-typical of diesel and have a higher boiling point, suggesting that they are an overlap of TPHmo concentrations detected.

Project Status

- The site is currently being monitored on a monthly and quarterly basis per the NCRWQCB directives. Depth to water measurements will be collected monthly and groundwater gradient maps will be included in the next quarterly monitoring report. The next quarterly sampling event is scheduled for July 2005. Groundwater samples will be analyzed for TPHmo, TPHd, and BTEX.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

Scott Ferriman
Project Scientist

Reviewed by:

Brian Gwinn, PG
Principal Geologist

PROFESSIONAL GEOLOGIST
BRIAN M. GWINN
No 6505
exp. 4/30/07
STATE OF CALIFORNIA

Attachments:
Table 1: Groundwater Elevations and Analytical Results
Table 2: Well Construction Details
Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3a: Groundwater Elevations and Gradient – 2/7/05
Figure 3b: Groundwater Elevations and Gradient – 3/10/05
Figure 3c: Groundwater Elevations and Gradient – 4/19/05
Figure 4: Dissolved-Phase Hydrocarbon Distribution – 4/19/05
Blue Rock's Gauge/Purge Calculations and Well Purging Data Field Sheets
Laboratory Analytical Reports and Chain-of-Custody Form

Distribution:

Mr. Jim Clark
Humboldt County Division of Environmental Health
100 H Street, Suite 100
Eureka, CA 95501

Mr. Bradford C. Floyd
819 Seventh Street
Eureka, CA 95501

Table 1
GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
Former Beaver Lumber Company
1220 Fifth Street
Arcata, California
Blue Rock Project No. NC-1

Sample ID	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHmo (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
SB-1	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
SB-2	6/12/03	--	--	--	**4,000**	<200	<0.5	<0.5	<0.5	<1
SB-3	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
SB-4	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
SB-5	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
MW-1	1/17/05	13.22	4.03	9.19	**280***	**86***	<0.5	<0.5	<0.5	<0.5
	2/7/05	13.22	3.96	9.26	--	--	--	--	--	--
	3/10/05	13.22	4.00	9.22	--	--	--	--	--	--
	4/19/05	13.22	3.81	9.41	**390***	**73***	<0.5	<0.5	<0.5	<0.5
MW-2	1/17/05	12.73	3.54	9.19	**210***	**60***	<0.5	<0.5	<0.5	<0.5
	2/7/05	12.73	3.48	9.25	--	--	--	--	--	--
	3/10/05	12.73	3.52	9.21	--	--	--	--	--	--
	4/19/05	12.73	3.33	9.40	<100*	<50*	<0.5	<0.5	<0.5	<0.5
MW-3	1/17/05	12.17	2.77	9.40	<100*	<50*	<0.5	<0.5	<0.5	<0.5
	2/7/05	12.17	2.83	9.34	--	--	--	--	--	--
	3/10/05	12.17	2.75	9.42	--	--	--	--	--	--
	4/19/05	12.17	2.37	9.80	<100*	<50*	<0.5	<0.5	<0.5	<0.5
MW-4	1/17/05	13.80	4.62	9.18	**430***	**99***	<0.5	<0.5	<0.5	<0.5
	2/7/05	13.80	4.55	9.25	--	--	--	--	--	--
	3/10/05	13.80	4.57	9.23	--	--	--	--	--	--
	4/19/05	13.80	4.39	9.41	<100*	<50*	<0.5	<0.5	<0.5	<0.5
				MCL	--	--	1	150	300	1,750
				Taste & odor threshold	--	100	--	42	29	17
				Cleanup Goals	175	100	0.5	42	29	17

Notes :

TOC: Top of casing referenced to feet above mean sea level (msl).

DTW: Depth to water as referenced to top of well casing.

GWE: Groundwater elevation as referenced to established benchmark.

TPHmo: Total Petroleum Hydrocarbons as motor oil by EPA Method 3510/8015M (* indicates silica gel cleanup).

TPHd: Total Petroleum Hydrocarbons as diesel by EPA Method 3510/8015M (* indicates silica gel cleanup).

BTEX: Benzene, toluene, ethylbenzene, and xylenes by EPA method 8020 and 8260B.

µg/L: micrograms per liter = ppb = parts per billion

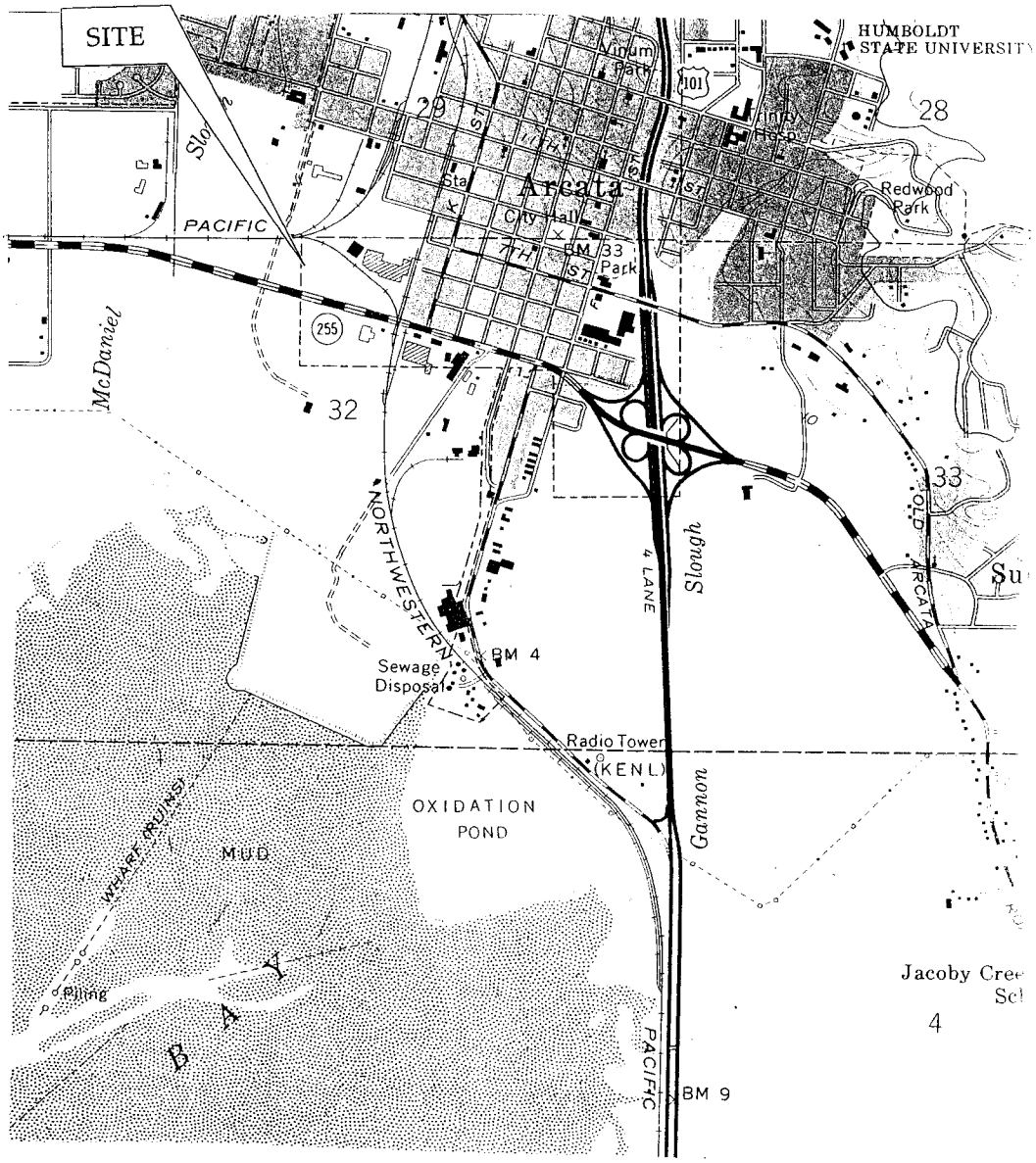
"--": Not analyzed, available, or applicable

MCL: Maximum contaminant level, a Federal drinking water standard based on health, technology and economics.

Taste & odor threshold: A drinking water standard

Table 2
WELL CONSTRUCTION DETAILS
Former Beaver Lumber Company
1220 Fifth Street
Arcata, California
Blue Rock Project No. NC-1

Well Identification	Date Intstalled	Intstalled by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement (feet)
MW-1	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1
MW-2	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1
MW-3	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1
MW-4	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1



SCALE 1:24000

1 MILE

7000 FEET

1 KILOMETER

CONTOUR INTERVAL 40 FEET

N

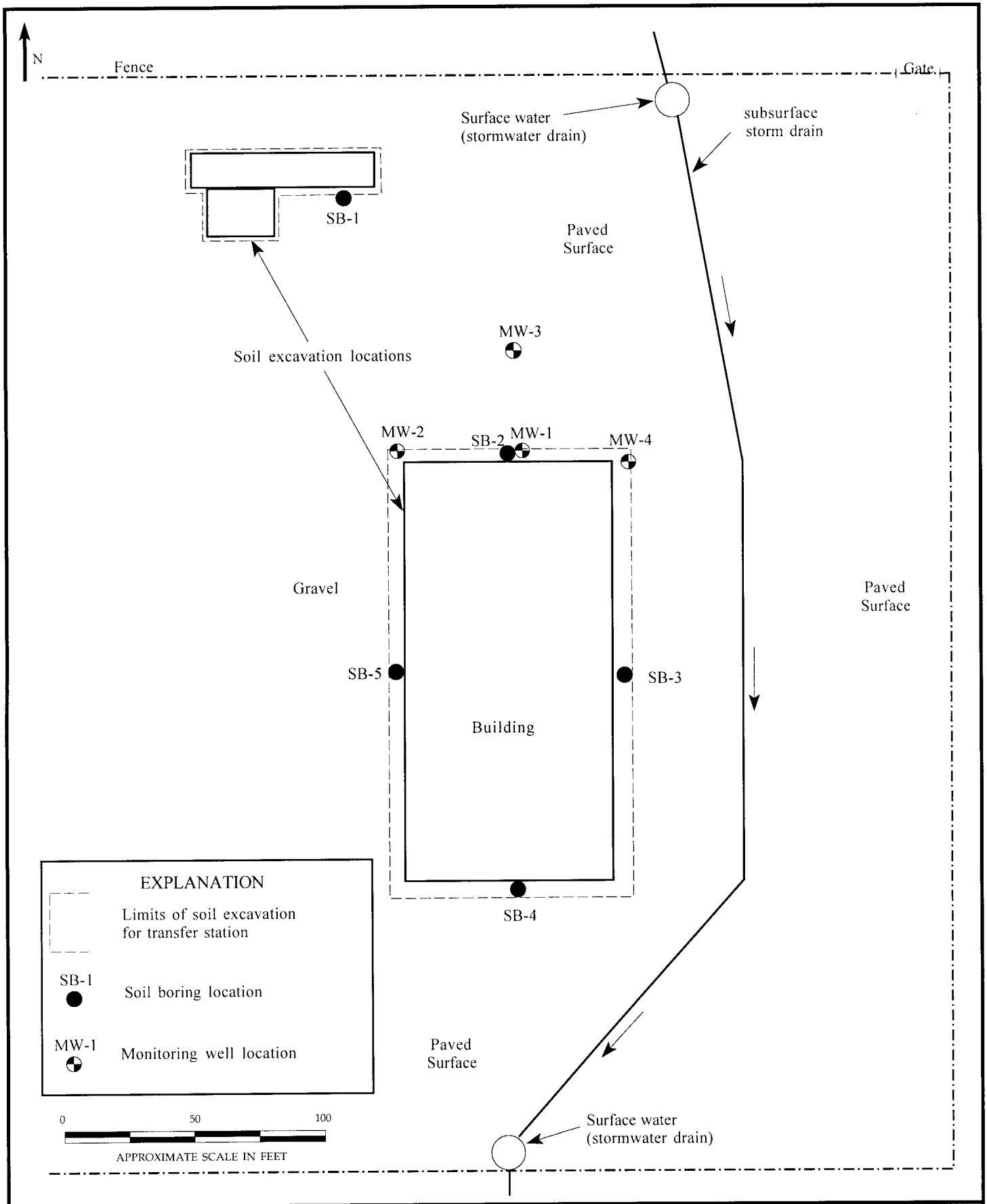
MAP SOURCE: USGS Arcata South, CA Quadrangle

Site Location Map

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Date	Figure
NC-1	1/05	1

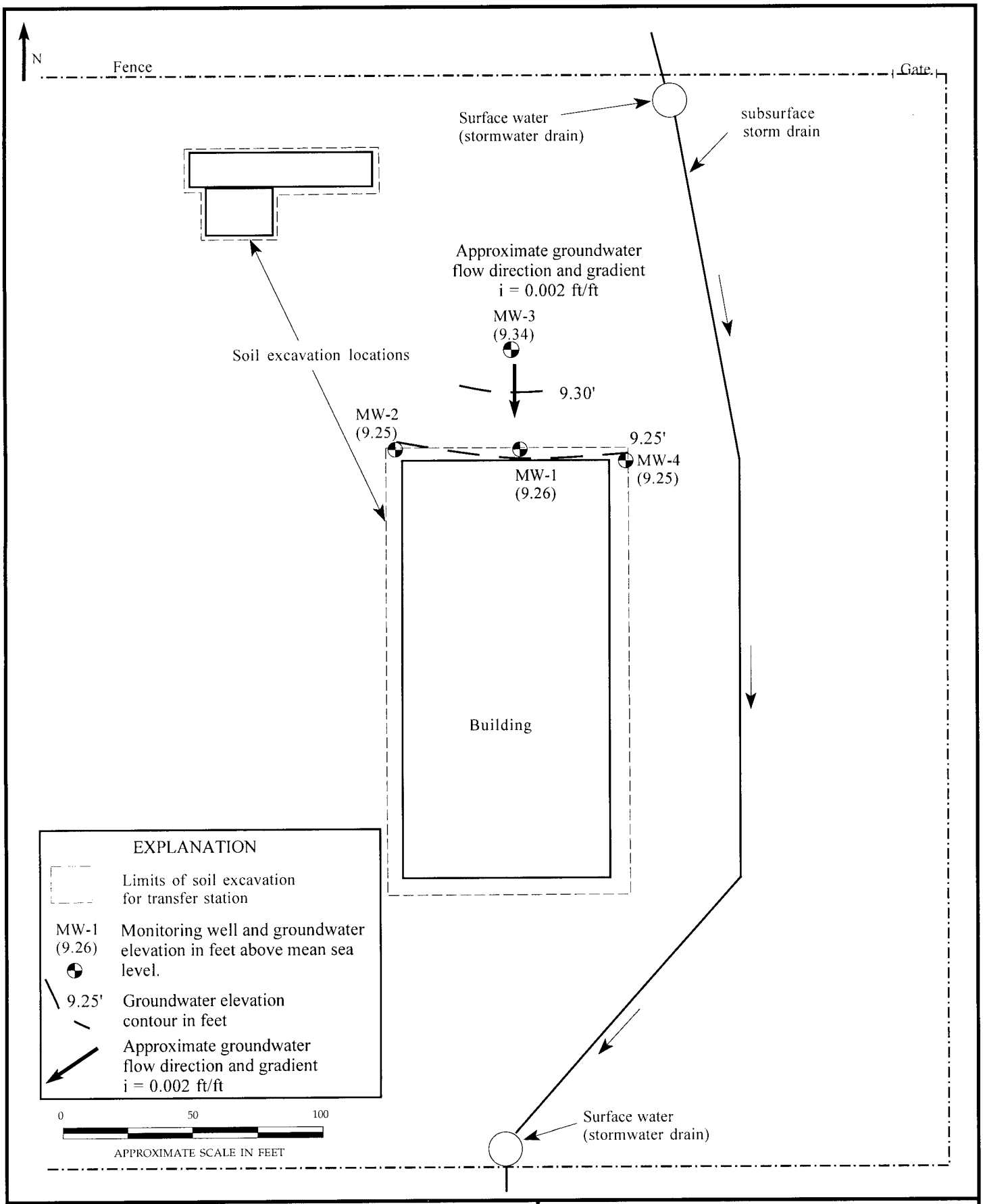


Site Plan

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-1	5/05	2

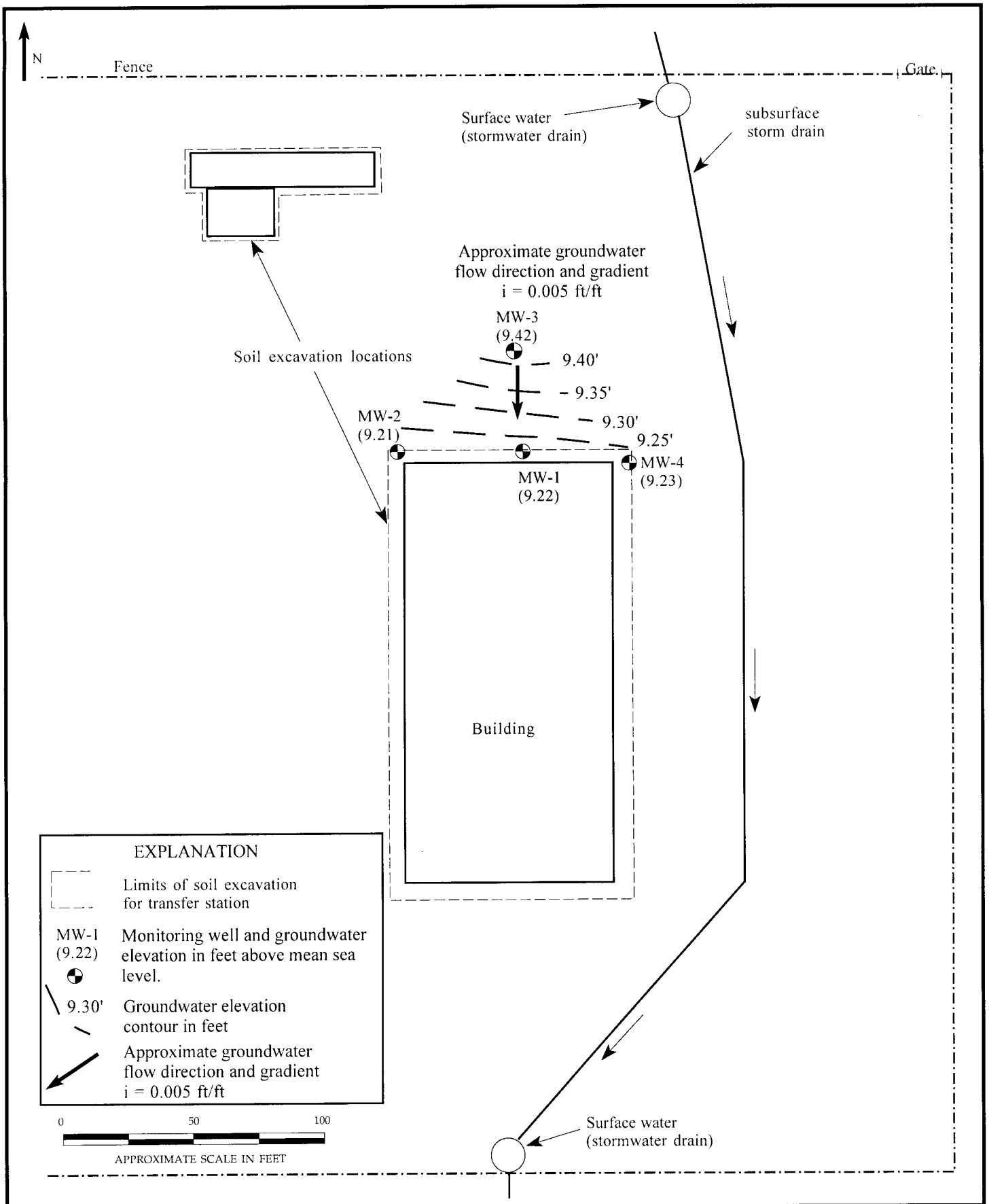


Groundwater Elevations and Gradient - 2/7/05

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-1	5/05	3a

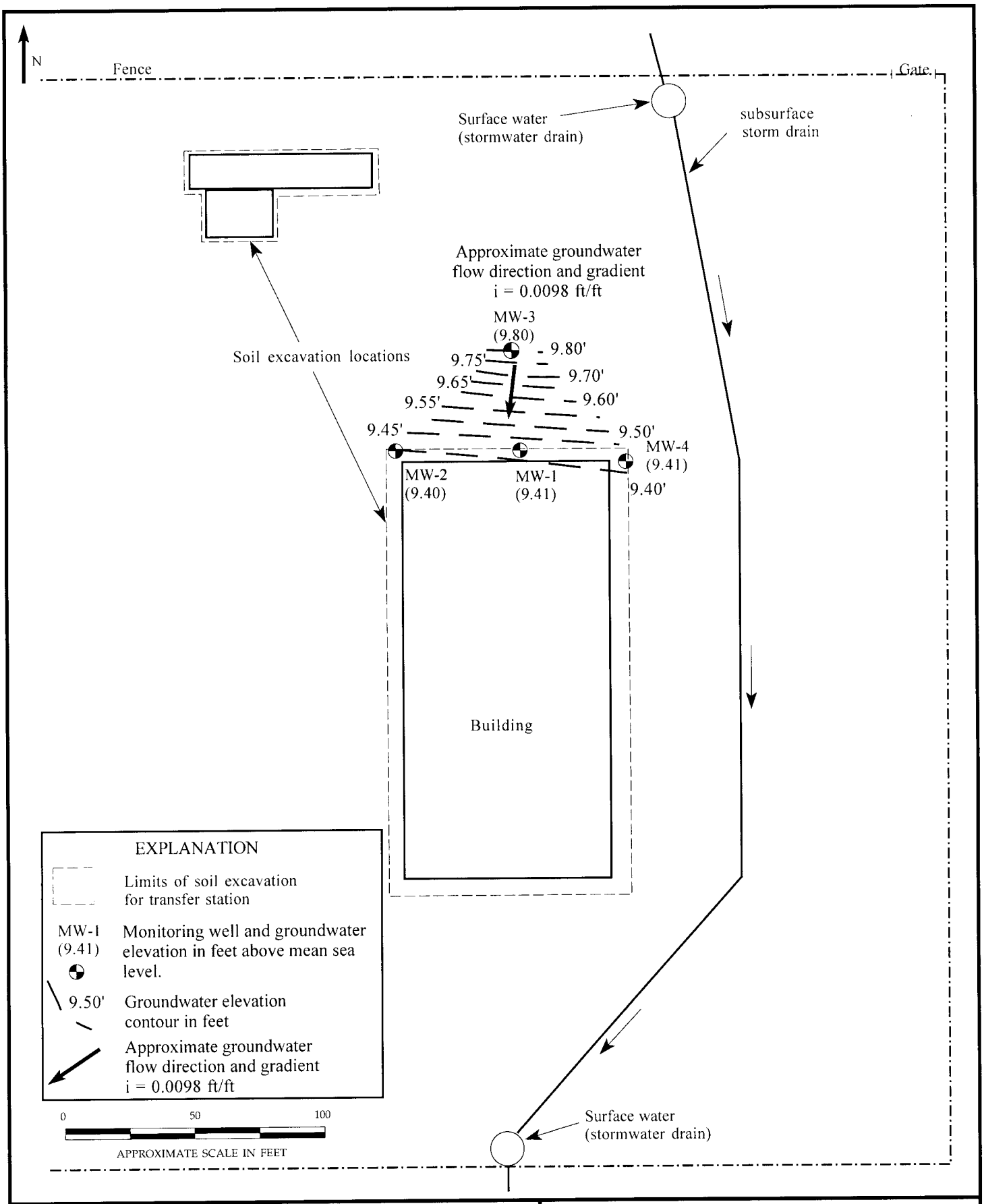


Groundwater Elevations and Gradient - 3/10/05

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-1	5/05	3b

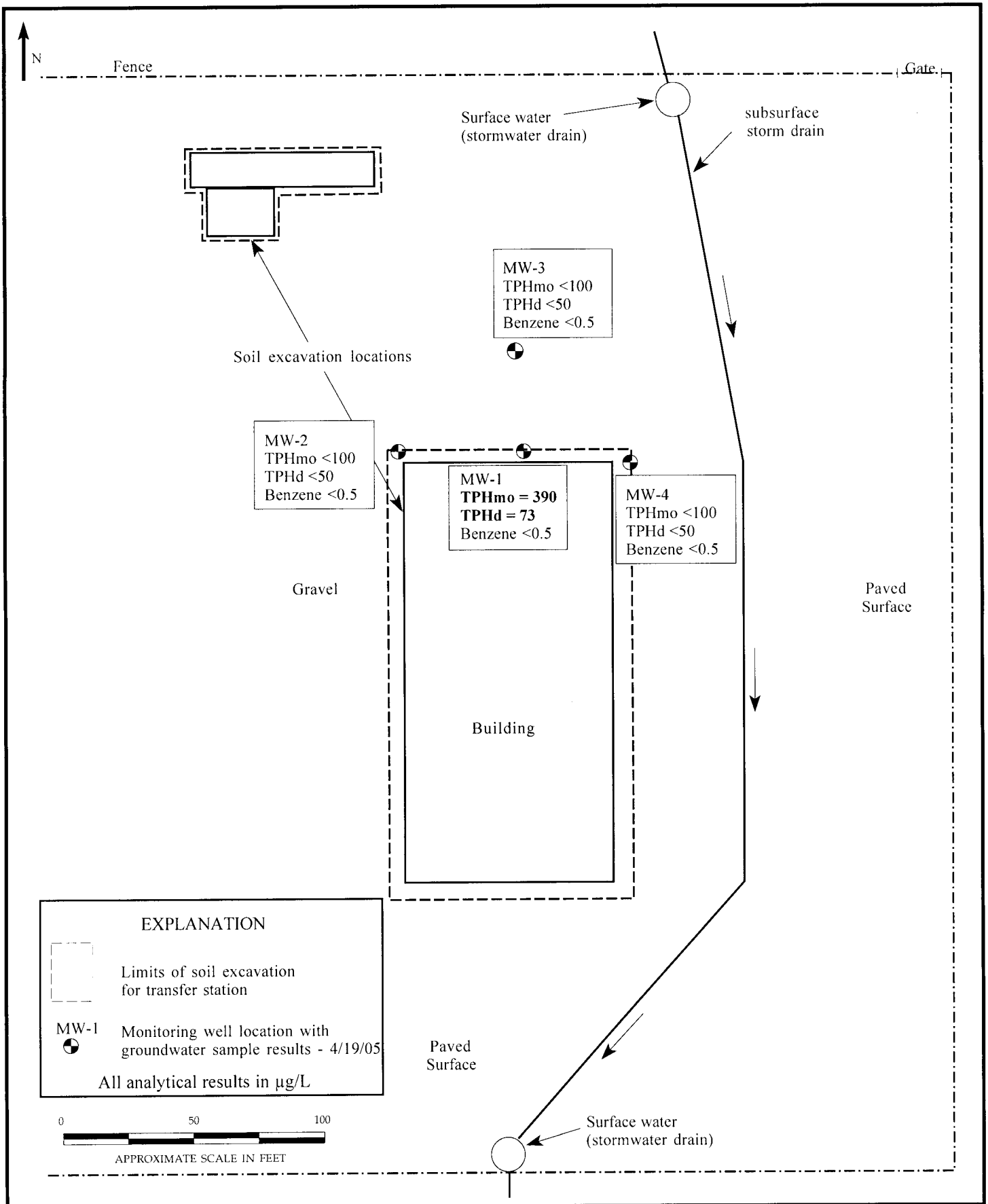


Groundwater Elevations and Gradient - 4/19/05

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-1	5/05	3c



Dissolved-Phase Hydrocarbon Distribution - 4/19/05

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Report Date	Figure
NC-1	5/05	4

GAUGING DATA/PURGE CALCULATIONS

Job No.: NC-1 **Location:** 1220 Fifth St. Arcata **Date:** 2/7/05 **Tech(s):** M. Richard

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
MW-1	2"	14.36	3.96					
MW-2	↓	14.46	3.48				↓	
MW-3		14.59	2.83					
MW-4	↓	14.49	4.55					

Explanation:
DIA. = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV,
well development 10 x CV)
SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):
2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

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ENVIRONMENTAL, INC.

GAGING DATA/PURGE CALCULATIONS

Job No.: NC1 **Location:** 1220 Fifth Street, Arcata **Date:** 3/10/05 **Tech(s):** SF

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
MW-1	2"	14.36	4.00				0.00	
MW-2	↓	14.46	3.52				0.00	
MW-3	↓	14.59	2.75				0.00	
MW-4	↓	14.49	4.57				0.00	

Explanation:
DIA. = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV,
well development 10 x CV)
SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):
2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

BLUE ROCK
ENVIRONMENTAL, INC.

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-1 **Location:** 1220 5TH St. Arcata **Date:** 4-19-05 **Tech(s):** J.L.

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
MW-1	2"	15.00	3.81	11.19	1.79	5.37	0	no sheen
MW-2	↓	15.00	3.33	11.67	1.86	5.58	↓	no sheen
MW-3	↓	15.00	2.37	12.63	2.02	6.06	↓	no sheen
MW-4	↓	15.00	4.39	10.61	1.69	5.07	↓	no sheen

Explanation:
DIA. = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV,
well development 10 x CV)
SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):
2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

BLUE ROCK
ENVIRONMENTAL, INC.

PURGING DATA

SHEET 1 OF 2

Job No.: MC-1 **Location:** 1220 5TH St. Arcata **Date:** 4-19-05 **Tech:** J.L.

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-1	1350		---	---	---
Calc. purge	~~1300~~	≈1	937	55.4	6.63
volume		≈3	838	54.5	6.71
5.37		≈5	813	54.0	6.78

Sample for: TPH mo

TPHg (TPHd) (8260)

(BTEX) MTBE Metals

Purging Method: disp. bailer

PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear to gray / low to mod turb / mod rech / no odor / no sheen

Sampling Method:

Dedicated / (Disposable bailer)

Sample at: 1400

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-2			---	---	---
Calc. purge	1300	≈1	708	59.6	6.26
volume	1310	≈3	531	58.8	6.47
5.58	1317	≈5	524	58.5	6.52

Sample for: TPH mo

TPHg (TPHd) (8260)

(BTEX) MTBE Metals

Purging Method: Disp. bailer

PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear to gray / mod. Turb. / mod. to good rech. / no odor / no sheen

Sampling Method:

Dedicated / (Disposable bailer)

Sample at: 1320

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-3			---	---	---
Calc. purge	1330	≈2	1688	61.7	6.56
volume	1335	≈4	1662	60.0	6.54
6.06		≈6	1655	59.5	6.58

Sample for: TPH mo

TPHg (TPHd) (8260)

(BTEX) MTBE Metals

Purging Method: Disp. bailer

PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear to gray / no odor no sheen / mod. rech. / to high mod. Turb.

Sampling Method:

Dedicated / (Disposable bailer)

Sample at: 1345

PURGING DATA

Job No.: NC-1 **Location:** 1220 5TH St Arcata **Date:** 4-19-05 **Tech:** J.L.

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-4			---	---	---
Calc. purge volume 5.07	1410	≈ 1 gal.	1534	59.7	6.50
		≈ 3 gal.	1436	58.5	6.62
		≈ 5 gal.	1361	58.3	6.76

Sample for: TPHg (TPHd/mo) 8260 (BTEX) MTBE Metals

Purging Method: disp Bailer — PVC bailer / Pump

Sampling Method: Dedicated / (Disposable bailer)

Sample at: 1420

COMMENTS: color, turbidity, recharge, sheen: Clear to gray | low to mod Turbid | mod. rech | no odor | no Sheen

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
			---	---	---
Calc. purge volume ____					

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at:

COMMENTS: color, turbidity, recharge, sheen

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
			---	---	---
Calc. purge volume ____					

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at:

COMMENTS: color, turbidity, recharge, sheen

KIFF ANALYTICAL LLC

Report Number : 43316
Date : 4/29/2005

Scott Ferriman
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 4 Water Samples
Project Name : Former Beaver Lumber
Project Number : NC-1

Dear Mr. Ferriman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 43316
Date : 4/29/2005

Subject : 4 Water Samples
Project Name : Former Beaver Lumber
Project Number : NC-1

Case Narrative

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for sample MW-1. These hydrocarbons are higher boiling than typical diesel fuel.

Approved By: Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43316

Date : 4/29/2005

Project Name : **Former Beaver Lumber**

Project Number : **NC-1**

Sample : **MW-1** Matrix : Water Lab Number : 43316-01

Sample Date :4/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene - d8 (Surr)	93.0		% Recovery	EPA 8260B	4/21/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	4/21/2005
TPH as Diesel (w/ Silica Gel)	**73**	50	ug/L	M EPA 8015	4/28/2005
TPH as Motor Oil (w/ Silica Gel)	**390**	100	ug/L	M EPA 8015	4/28/2005

Sample : **MW-2** Matrix : Water Lab Number : 43316-02

Sample Date :4/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene - d8 (Surr)	93.8		% Recovery	EPA 8260B	4/21/2005
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	4/21/2005
TPH as Diesel (w/ Silica Gel)	**< 50**	50	ug/L	M EPA 8015	4/28/2005
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	4/28/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43316

Date : 4/29/2005

Project Name : **Former Beaver Lumber**

Project Number : **NC-1**

Sample : **MW-3** Matrix : Water Lab Number : 43316-03

Sample Date :4/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene - d8 (Surr)	93.0		% Recovery	EPA 8260B	4/21/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	4/21/2005
TPH as Diesel (w/ Silica Gel)	**< 50**	50	ug/L	M EPA 8015	4/28/2005
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	4/28/2005

Sample : **MW-4** Matrix : Water Lab Number : 43316-04

Sample Date :4/19/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/21/2005
Toluene - d8 (Surr)	93.7		% Recovery	EPA 8260B	4/21/2005
4-Bromofluorobenzene (Surr)	99.4		% Recovery	EPA 8260B	4/21/2005
TPH as Diesel (w/ Silica Gel)	**< 50**	50	ug/L	M EPA 8015	4/28/2005
TPH as Motor Oil (w/ Silica Gel)	**< 100**	100	ug/L	M EPA 8015	4/28/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43316

QC Report : Method Blank Data

Date : 4/29/2005

Project Name : **Former Beaver Lumber**

Project Number : **NC-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	4/28/2005
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	4/28/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/20/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/20/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/20/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/20/2005
Toluene - d8 (Surr)	95.5		%	EPA 8260B	4/20/2005
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	4/20/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43316

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 4/29/2005

Project Name : **Former Beaver Lumber**

Project Number : **NC-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	1120	1170	ug/L	M EPA 8015	4/28/05	112	117	4.29	70-130	25
Benzene	43314-02	<0.50	40.0	40.0	38.9	38.5	ug/L	EPA 8260B	4/20/05	97.2	96.2	1.07	70-130	25
Toluene	43314-02	<0.50	40.0	40.0	41.1	40.2	ug/L	EPA 8260B	4/20/05	103	100	2.22	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43316

QC Report : Laboratory Control Sample (LCS)

Date : 4/29/2005

Project Name : **Former Beaver Lumber**

Project Number : **NC-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	4/20/05	96.6	70-130
Toluene	40.0	ug/L	EPA 8260B	4/20/05	101	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 43316 Page 1 of 1

Project Contact (Hardcopy or PDF To): Scott Ferriman
Company/Address: Blue Rock Env. Inc. 535 Third St. Ste. 100 Eureka, CA
Phone No.: (707) 441-1934 FAX No.: (707) 441-1949
Project Number: NC-1 P.O. No:
Project Name: Former Beaver Lumber
Project Address: 1220 Fifth St. Arcata, CA

California EDF Report? [X] Yes [ ] No

Recommended but not mandatory to complete this section:
Sampling Company Log Code: - - -
Global ID: T-0-6-0-2-3-9-3-1-0-9
EDF Deliverable To (Email Address): Scott@blueRockEnv.com
Sampler Signature: Donna Lindsay

Chain-of-Custody Record and Analysis Request

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	Analysis Request: BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015) Silica gel clean-up	TPH as Motor Oil (M8015) Silica gel clean-up	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	BTEX by 8260	TAT: 12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only
MW-1	4/19/05	1400	6		X		X		X				X	X										X		-01
MW-2	"	1320	"		"		"		"				"	"										"		-02
MW-3	"	1345	"		"		"		"				"	"										"		-03
MW-4	"	1420	"		"		"		"				"	"										"		-04

Relinquished by:	Date	Time	Received by:	Remarks:
Donna Lindsay	4-19-05	1600	Fed Ex	SAMPLES ARRIVED VIA FEDEX ON WET ICE, TEMPERATURES WERE 5.1°C VIA IR-1. RCP 042005 1050
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date 042005	Time 1050	Received by Laboratory: Robert C Peddle KIFF ANALYTICAL	Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9